Nor' West Miner

EDMONTON, ALBERTA

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oted to development descriptive of the North West Territories, Northern British Columbia and the Yukon. Along the Trail of the Alaska Highway.

Published at Edmonton, Alberta—"The Gateway to the Far North and Alaska."

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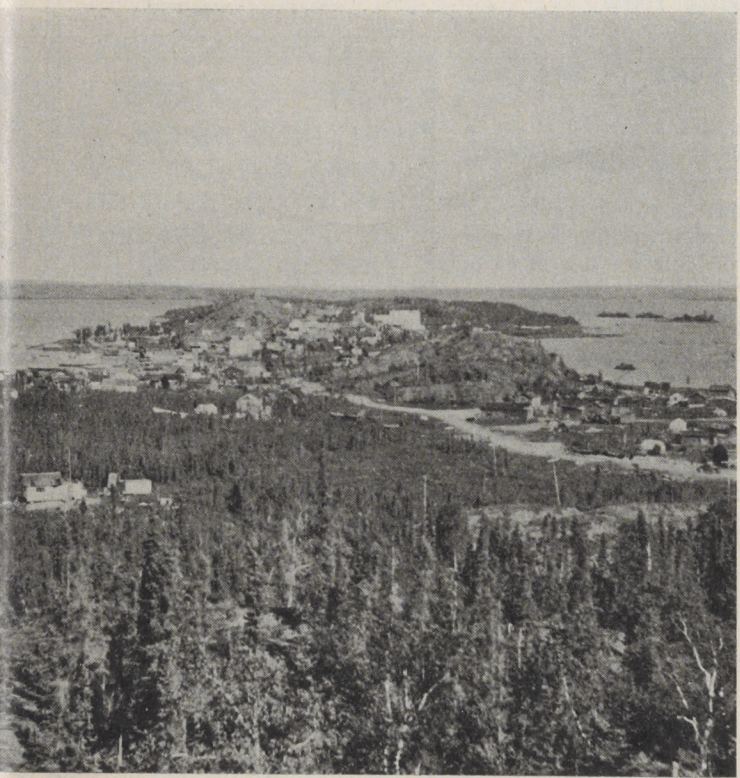

Yellowknife—Showing New Town Layout.

A Third Trans-continental Railway for Canada!

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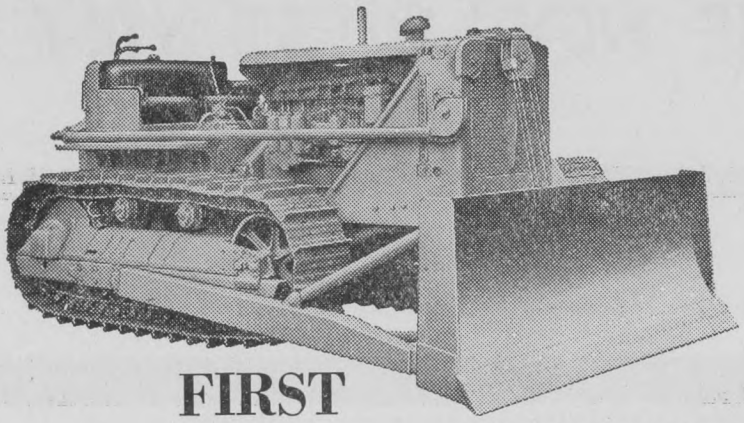

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THE NOR' WEST MINER

EDITOR—F. S. WRIGHT

Devoted to development descriptive of the North West Territories, Northern British Columbia and the Yukon—Along the Trail of the Alaska Highway.

Published at Edmonton, Alberta—"The Gateway to the Far North and Alaska."

Subscription: $2.00 per annum, post free. Address: Box 323, Edmonton, Alberta.

Says The Miner:

Apologies for the late appearance of the 1946 series of the Nor' West Miner. The reason—the editor has been on the sick list, also the advertising manager, circulation manager and the office boy. That is the worst of these one-man organizations. However, we hope to makeup for lost time during the balance of the year.

* * *

Representation in the House of Commons at Ottawa now seems to be the coming possibility under Redistribution. Let us hope that at the same time, the Dominion Government will seriously consider the establishment of a local North West Territories Council, similar to the one which operated for years, with headquarters at Regina, to administrate the affairs of the prairie provinces before they became autonomous. This Council, composed of local residents proved very successful in giving good government on an economical basis. A similar plan of administration applied to the North West Territories seems the most adequate solution of present long range government administration.

* * *

Roads—winter roads—as illustrated in the last issue of the Nor' West Miner, it is pleasing to note are on the Dominion Government's future northern development program. In this huge territory with its long period of freezeup the winter road and the stock pile at the head of water navigation is the answer to many a northern problem. For instance a road from Yellowknife or Fort Rae to Great Bear Lake would mean quicker transportation for radium concentrates. Extended to Bathurst Inlet it would directly connect the Arctic with civilization by road, and the extension of the Grimshaw Highway to Mills Lake would mean six weeks more navigation on the lower Mackenzie River.

* * *

We do not suggest that we are entitled to hand out advice to Northern residents, but we would like to mention that most important of all in connection with the selection of a House of Commons representative at Ottawa is that he shall have no axe to grind outside of the benefit of the North and that he should be familiar with all phases of northern development and its requirements for future progress. No one industry should assume that it is entitled to speak for the whole North.

* * *

It is pleasing to note that almost everything advocated by the Nor-West Miner over a period of some fourteen years are now almost accomplished facts. The Alaska Highway via Edmonton; the Grimshaw-Great Slave Lake Highway; representation at Ottawa, and many other improvements were first suggested by the Nor' West Miner and for years it has hammered at these objectives in its small way aided by the unselfish support it has received from the civic administration of the City of Edmonton, the business men of Edmonton and numerous organizations in the Peace River and Northern districts. We have no hesitation in sugesting that this teamwork has got places and let us hope will continue to do so.

CANADA'S THIRD TRANSCONTINENTAL RAILWAY

$18,000,000 To Build 525 Miles of New Railroad Can Give Canada a Third Transcontinental Railway.

Canada is due for a third transcontinental railway is the conclusion gradually being arrived at by the Governments of Manitoba and Saskatchewan and also the people of the Peace River. The time that this project shall receive full consideration is right now when the question of reconstruction and the opening up of the North is occupying the minds of many interested.

The uninformed will immediately state that the idea of a third transcontinental railway across Canada is absurd, seeing the many acres of lands that are still vacant along the present transcontinental railways. That argument might be good, if it was a question of building 2,000 miles or more of new railway. However, if one glances at the map of the Dominion it will be seen that a railway has already been built from Fort Churchill to Le Pas, Manitoba, where it connects up with the Canadian National Railway.

The C.N.R. also extends from Le Pas as far as Meadow Lake in Saskatchewan. Here there is the first gap, namely between Meadow Lake and Lac La Biche. At Lac La Biche the Northern Alberta Railway is tapped running as far as Boyle, 42 miles west of Lac La Biche. The other gap comes in at Boyle between that place and Smith on the Northern Alberta Railway.

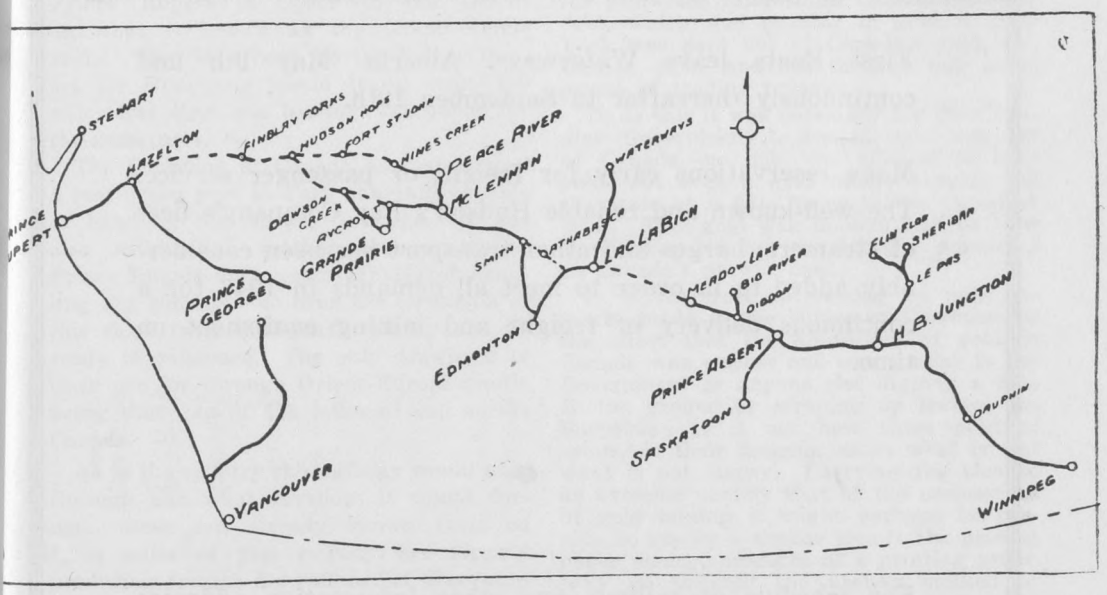
From here rails run right through to Hines Creek on the North bank of the Peace and to Dawson Creek, B.C., on the South bank of the Peace. Another gap starts here running from Dawson Creek to Hazelton, B.C., where it would once again be possible to connect up with the Canadian National Railway to Prince Rupert on the Pacific Coast. The total distance of the gaps to be filled is 525 miles, which at an estimated cost of $30,000 a mile, would cost some eighteen million dollars.

Thus Canada can get its third transcontinental railway for around eighteen million dollars, which compared with the cost of either the Canadian Pacific or the Canadian National Railway is a mere fleabite into the taxpayers' purse of the Dominion. In fact, it need not cost the taxpayers a cent for the Canadian Nationally owned railway now has ample funds of its own to finance this extension.

The queston, of course, arises as to its economic worth. The first thing to be considered is distance:

The distance from Prince Rupert to Fort Churchill over this route is 1,805 miles. Of this some 1,280 miles are already constructed, leaving 525 miles of new line to be built.

The distance from Fort Churchill to



Route of Canada's Third Trans-Canada Railway Showing Gaps to be Connected.

Hudson's Bay Company

INCORPORATED 2ND MAY 1670.

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MACKENZIE RIVER DIVISION

1946

Down North Schedule of Sailings

1946

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INCORPORATED 2ND MAY 1670

EDMONTON, ALBERTA

Liverpool, England, is 2,936 miles. The distance from Prince Rupert to Hongkong in Asia is 5,320 miles. The total distance, rail and sea from Hong Kong to Liverpool by this route is 10,061 miles, of which only 525 miles of rail has to be built.

Comparing the distances from Hong Kong to Liverpool via Vancouver or Prince Rupert we find:

Hong Kong to Vancouver, 5,800 miles.
Hong Kong to Prince Rupert, 5,320 miles.

Vancouver to Montreal, 2,930 miles.
Prince Rupert to Fort Churchill, 1,805 miles.

Montreal to Liverpool, 3,007 miles.
Churchill to Liverpool, 2,936 miles.

The total distance in favor of the Fort Churchill-Prince Rupert route is a saving of 1,676 miles.

Few can imagine that such a difference in mileage can exist, but a glance at the map will show the reason why. The Atlantic steamer route via Churchill extends well into Manitoba, whilst the Atlantic route via the St. Lawrence River extends only as far as Montreal. Again Prince Rupert is closer to the Orient on what is known as the Grand Circle route. That is, a boat leaving Prince Rupert for Hongkong would travel some 500 miles less than one leaving Vancouver for the same port.

The Dominion of Canada has established a real ocean port at Fort Churchill capable of handling almost any tonnage. It has also established another ocean port at Prince Rupert once again capable of handling any tonnage—so even the terminals of this third transcontinental railway are already in existence. The only drawback to their use for through Orient-Europe traffic being that gap of 525 miles of rail across Canada.

As to the country this railway would pass through and what revenues it would furnish, these are already known facts as 1,280 miles of this railway are already producing freight for rail haul. The country in addition to its agricultural, timber and oil lands, also has a large section of the pre-Cambrian mineral formation which is now being developed and proving very remunerative.

Summing up the situation: The building over the gaps in this line is so obviously of value to Canada as to make any argument to the contrary sound foolish. The opening up of another large stretch of rich country to the North would be of immense advantage to Canada. The shortening of the rail and sea route from Europe to the Orient is also of unquestionable value both from the Dominion and the Imperial point of view.

Then why has this project not been more favorably considered? The reason is not far to seek. The entrenched interests in Montreal-Vancouver with the interlocking railways across Canada are afraid that such a line would divert the grain and other business away from these two ports. No doubt it would in part, but why should such considerations be allowed to block the way when the general benefit to both Canada and the Empire is so obvious and the cost so meagre in these days of billion dollar war and peace expenditures?

Paper Money Versus Gold Money

The sale of gold to the United States, says R. S. Waldie, President of the Imperial Bank of Canada is our greatest asset to balance our payments to that country. No doubt he was referring to the fact that for years the interest on Canada's prewar debt, which was payable in gold in New York was paid out of Canada's gold production alone and not through any other means of trading revenue.

To do this it was necessary for the Canadian Government to control gold supplies of Canada—no one was allowed to have gold—not even a gold mine—it must sell the same at a fixed price to the Canadian Mint. This gold was in turn sent to New York where it met the interest payments on Canada's prewar debt.

It is therefore interesting to note remarks made in the House of Commons to the effect that the production of gold in Canada was useless and was similar to the Government or anyone else digging a hole in the ground or scraping up leaves, etc. Surprising is it not how these political solons do their figuring as to what is and what is not money. Carrying the idea to an extreme namely that of the uselessness of gold mining it might perhaps be possible to supply a similar idea to the present paper money, products of a printing press. Why go through the useless method of printing a dollar on a piece of paper and calling it money? Why not just produce everything one eats, drinks and wears individually and if the other fellow wants to do the same, let him do it himself without expecting other people to do it for him.

Gold was money when Adam was a pup. Gold has been money ever since the Egyptians placed their scrolls on the Pyramids and gold was money—and is money today —notwithstanding wars, crisis and the vagaries and theories of Men or Governments who figure that the way to get something without paying for it is to just write a note.

MINERAL DEVELOPMENT IN THE NORTHWEST TERRITORIES IN 1945

Prepared by W. L. Lothian Under the Auspices of the Northwest Territories Administrative Council, Ottawa.

The increased importance of the pitchblende deposits in the vicinity of Eldorado mine on Great Bear Lake, additional activity in the Yellowknife Mining District, and a decline in the production of petroleum at Norman Wells in the lower Mackenzie Basin were the outstanding events of the mining industry of the Northwest Territories during 1945.

Concurrent with new developments has arisen a pressing need for more adequate facilities for transportation, and to meet requirements, federal and provincial authorities, in co-operation with private enterprise, have undertaken an extensive program of improvements. This program involves the improvement and extension of roads serving the mineralized areas, the deepening of channels and the removal of navigational hazards on the Mackenzie River system, and improvements to existing facilities for aerial transportation. In addition, geological investigations, topographical mapping, forest protection, agricultural experiments, and fisheries research have been continued.

Recent disclosures of the results obtained in atomic research with the aid of uranium, have established the Eldorado Mining and Refining property on Great Bear Lake as one of the most important on the continent. As one of the chief sources of uranium, as well as of radium, it may well play a leading part in postwar science.

Although information relating to the tonnage of ore mined, and shipped as concentrate from the mine to the refinery at Port Hope, Ont., has been withheld from publication for some time, it is known that the mill operated at capacity during the past year, with sime 200 employed. The shaft has been enlarged and a powerhouse with new electric hoist and headframe has been constructed on the surface to replace the former hoist situated underground.

Transportation of concentrates by water from the mine to railhead at Waterways, Alta., is being improved by the extension of the existing portage road around St. Charles Rapids on Great Bear River for a distance of 35 miles upstream to the outlet of Great Bear Lake. Work on the road was well under way by late summer, and its completion, probably early in 1946, will eliminate the risk of loss of cargoes in a hazardous stretch of river previously navigated by power boats with barges.

International Uranium Mining Co. Ltd. is preparing to resume underground work on its Contact Lake property, 7½ miles southwest of the Eldorado mine. Evidences of both pitchblende and high grade silver have been found on this company's property.

15,000 Claims Staked

The wave of prospecting and staking that followed reports of spectacular results from drilling on properties of Giant Yellowknife Gold Mines Ltd. in 1944, continued into 1945. From the commencement of the current boom to the end of October, 1945, about 11,500 new claims had been recorded, and more than 15,000 were in good standing .

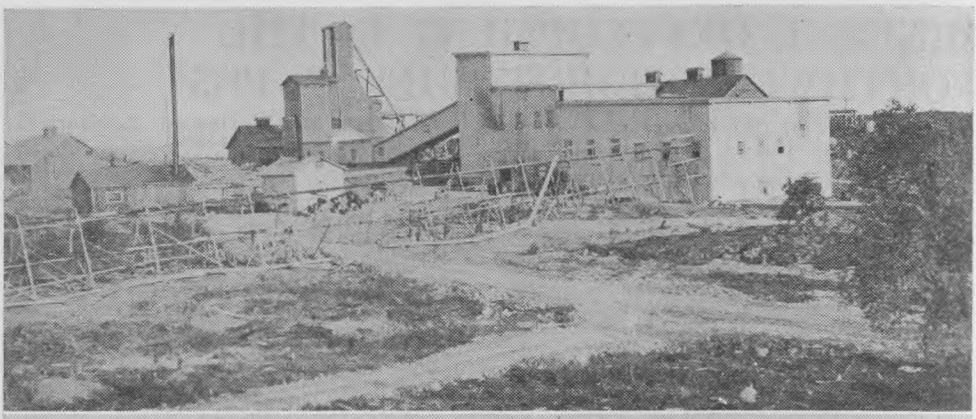
Prospecting and staking have extended from the Yellowknife River area, in which the Con, Negus, and Ptarmigan mines are situated, northward to the Indin Lake area about 135 miles north of Yellowknife, northeastward to the treeless barrens in the vicinity of Courageous Lake, and eastward along the Hearne channel of Great Slave Lake. Much mining activity has occurred also in the Thompson Lake, Gordon Lake, and Beaulieu River areas within a 75-mile radius of Yellowknife settlement.

Diamond drills have been used extensively for exploration of interesting surface showings, and the recent removal of wartime restrictions on the sinking of new shafts has enabled mining companies to extend their operations by construction of prospect shafts for underground exploration. In November, 1945, about 70 mining companies had an active interest in the Yellowknife Mining District, and five other organizations had an associate interest.

Large Ore Tonnage

Giant Yellowknife Gold Mines Ltd. among the new companies is farthest advanced in its development plans. Two three-compartment shafts are to be sunk; No. 1 is expected to be completed to 500 feet in January, and levels will be established at 200, 325 and 450 feet. No. 2 shaft, 6,000 feet north, will be commenced when No. 1 has reached its initial depth objective. Later two more shafts may be sunk.

The company has reported ore reserves



MINES OF THE NORTH . . . Top—Negus Mine, Yellowknife September, 1942.
Radium Mines, Great Bear Lake, August, 1944
Con Mine, Yellowknife, showing roasting units on the left.
Giant Yellowknife Gold Mines, Yellowknife, September, 1945.

indicated by diamond drilling computed at 2,372,200 tons of an average uncut grade of 0.35 ounce, or 0.28 ounce cut above 300 feet; ocurring in several blocks or lenses along a distance of 10,500 feet. Twenty per cent allowance is made for dilution. Production, it is thought, can be commenced in late 1947 or early 1948.

The mill will be sited between the two shafts and the plant layout anticipates eventual enlargement to 2,000 tons daily. Production will commence with one 500 ton unit, with the mill design providing for an increase to 1,000 tons. Grade at the start is expected to be 0.49 ounces uncut, and 0.38 ounces cut.

Operation costs for the first unit, based on Diesel power, have been reckoned at $9 per ton, including $3 or $3.50 for development charges. However, at 1,000 tons or more, company officials have calculated that costs may be lowered to between $6 and $7 per ton. At present hydro-electric power is available from the Consolidated Smelters' 4,700 h.p. plant on the Yellowknife River at Prosperous Lake, but Frobisher Exploration engineers have been investigating power possibilities on the Snare River, and current may be at hand from that source by the time the mill is ready. The company has authorized the purchase of equipment for the construction of a dam on the river as the first step towards development of the site for hydro-electric energy.

Underground Development

Underground development of the Gold Crest group of claims of Transcontinental Resources Ltd. by the recently incorporated Crestaurum Mines Limited is expected to begin in April, 1946. Plans have been completed for the importation by tractor train this winter of material required to sink a three compartment, inclined shaft of 500 feet. A program of diamond drilling embracing a total of 30,000 feet was completed in November. The company is undertaking also construction of an all-weather road which will connect its property with the Giant Yellowknife road to Yellowknife settlement.

Amongst other companies carrying on active work in Yellowknife River area are Yellorex Mines Ltd., West Bay Yellowknife Mines Ltd., Cassidy Yellowknife Mines Ltd., Homer Yellowknife Mines Ltd., Lynx Yellowknife Mines Ltd., Nib Yellowknife Mines Ltd., Sovereign Yellowknife Mines Ltd., and Balboa Mines Ltd.

Gordon Lake Area

In the Gordon Lake area, Argonaut Yellowknife Mines Ltd. are extending their prospect shaft to a depth of 100 feet, where drifting on the vein will commence. This company has also been active at Hidden Lake in the Thompson Lake area, where a diamond drill has been operated.

Activities in the Beaulieu River region included drilling on the properties of Beaulieu Yellowknife Mines Ltd. Explorative programs are being undertaken also by the F. S. Group, Carlmak Mines Ltd., Brenda Yellowknife Mines Ltd., and Territories Exploration and Drilling Company.

Indin Lake Area

The Indin Lake area directly north of Yellowknife Bay received a great deal of attention during the late summer of 1945. Indian Lake Gold Mines Ltd. and Colomac Gold Mines Ltd. have carried on a very active drilling campaign under one management and have explored the long porphyry dike discovered on the west of Long Lake for approximately 10,000 feet. Continuation of the drilling program and the driving of several small adits into the dike for sampling are included in the winter's program.

Other companies actively engaged in drilling or exploration in the Indin Lake area include Mining Research Corporation on the Portland group of claims northwest of Damoti Lake, North Inca Gold Mines Ltd at the east end of Indin Lake, and Goldcrest Mines Ltd. on properties south of those listed above. Mercury Gold Mines Ltd. plan to reopen their property east of Arseno Lake and undertake a program of drilling and sinking.

Gold Production

Actual gold production in the Yellowknife District in 1945 has been small. It had amounted to $14,009,014 to the end of 1944.

Negus Mines Ltd., the last of six producing gold mines to suspend milling, reopened its mill on July 16, 1945, after a nine-months' shutdown, and has about 60 men employed. The first brick was reported poured on August 23, 1945. The mine is milling at capacity of 70 tons daily and average mill heads are said to be close to one ounce. During the period in which the mill was closed, development work was continued and the shaft deepened to permit the opening of two new levels. An exploratory drilling program is now under way underground for prospecting of new ore bodies.

Development has continued also at the Consolidated Mining and Smelting Con mine, where milling was discontinued in September, 1943. Work has been confined principally to drifting and cross-cutting, and ore reserves blocked out to date are estimated to be capable of maintaining a high mill rate for some time. Reopening of the mill and resumption of gold production have been forecast for 1946. The Ptarmigan mine near Prosperous Lake, the Thompson Lundmark mine at Thompson Lake, and the International Tungsten mine on Outpost Island, Great Slave Lake, which were closed between September, 1942 and September, 1943 have not yet resumed operations.

Road Development

The development of promising mining properties into producing mines is contingent on the provision of suitable facilities for transportation. The conveyance of supplies to the Yellowknife area from railhead will be facilitated by the completion of an all-weather road linking Grimshaw, Alta., and Hay River settlement on Great Slave Lake, and an agreement between the Dominion Government and the Alberta Government for construction of this road was executed on November 3, 1945.

An existing provincial road from Grimshaw to Notikewin, Alta., will be extended for 247 miles to the Alberta-Northwest Territories boundary, with construction being undertaken jointly by the Dominion and the province The Dominion will contribute to the cost of construction an amount not exceeding two-thirds of the cost, and the province will bear not less than one-third. The section of the highway through the Northwest Territories, extending from the boundary northwards to Hay River settlement, a distance of 80 miles, will be built entirely at the expense of the Dominion Government.

The agreement provides that the work of construction shall be commenced not later than May 1, 1946, and that the road will be completed by December 31, 1947. The road will be built to a width of 20 feet, with special attention given to drainage. Also, the existing road between Grimshaw and Notikewin, 59 miles long, will be improved and brought up to the standard of the new road.

The new road will supplement the present river route from Waterways, and is expected to speed delivery of freight to Great Slave Lake where connection will be made with boats serving Yellowknife and other places. In winter, the road will tie up with a tractor route across the lake to Yellowknife. In the meantime, maintenance of the route as a winter road will be undertaken by Ingraham Brothers, who are being aided by a grant from the Northwest Territories Administration.

In the immediate vicinity of Yellowknife, roads connecting the settlement with the airport at Long Lake, and the Con and the Negus mines, have been improved. Construction of a new road 3½ miles long from the Giant Yellowknife property to the settlement of Yellowknife is nearing completion and, as already stated, a road connecting Crestaurum Mines Ltd. with this route is to be built. Also, consideration is being given to the development of a system of roads or tractor routes to serve mining properties farther afield.

Improvement of Navigation

The improvement of navigation along the Mackenzie waterway from railhead at Waterways to points north has been undertaken by the Federal Department of Public Works. Construction of a special dredge for use in deepening the channel in the Athabasca River delta is under way, and should be ready for use in 1946 A complete harbour survey of the waterfront at Fort Smith was made this summer by engineers of the Department of Public Works. Investigations of harbours at Fort Resolution, and at Buffalo River and Deadman's Island along the south shore of Great Slave Lake, also were completed.

Engineers of the Department of Public Works and the Hydrographic Survey of the Department of Mines and Resources investigated conditions in the vicinity of Green Island on Mackenzie River, a few miles upstream from Fort Simpson, and located a good channel with six to seven feet of water which is believed may be used as a permanent channel.

Soundings were made in the vicinity of Yellowknife settlement for the purpose of building a large public wharf between the mainland and Jolliffe Island, and information obtained indicates the possibility of construction at this site.

Railway and Water Freight Rates

The high cost of freighting mining equipment and supplies to points in Mackenzie District has been a matter of concern to federal administrative authorities and to mining companies. Representations made within the past year to the Board of Trans-

port Commissioners on the subject of reduced freight rates over the line of the Northern Alberta Railways from Edmonton to Waterways, have not resulted in any reductions.

Similarly, the rates of the various water transportation companies for carriage of freight from railhead at Waterways over the Mackenzie River route to points north also has been the subject of representations by various agencies.

The Department of Transport has undertaken to amend the Transport Act, 1938, to extend the jurisdiction of the Board of Transport Commissioners to cover water transportation in the Mackenzie River area. A bill to amend the act was passed by the House of Commons on November 15, and received second reading in the Senate on November 23, 1945. Its passage will permit the submission of an appeal for the reduction of existing rates.

Aerial Transportation

The inauguration of joint defence projects in northwestern Canada during the war led to the development of the Mackenzie River Air Route as a medium for providing a dependable means of aerial transportation to the oil field at Norman Wells. Graded landing strips were constructed by United States Army engineers (with expenditures reimbursed by Canada) at Fort McMurray, Embarras, Fort Smith, Fort Resolution, Hay River, Providence, Fort Simpson, Wrigley, and Norman Wells. With the improvement of the war situation generally, the importance of the route was lessened from a military standpoint but the Department of Transport assumed responsibility for upkeep and control of the aerodromes and placed them more or less on a commercial basis. The aerodromes are now maintained to a standard permitting year around use by modern, commercial type aircraft with weather stations operating at all points.

As the result of the discoveries of large bodies of gold-bearing ores and other important minerals in the Yellowknife area, the Dominion Government has undertaken to develop an aerodrome at Yellowknife, and one permanent flight strip was completed this autumn. This development at Long Lake, about four miles from Yellowknife settlement, together with existing aerodromes along the route, has improved air transportation service by commercial lines with almost daily flights from Edmonton in modern aircraft. Interruptions formerly associated with the operation of pontoon and ski-equipped aircraft during "break-up" and "freeze-up" no longer are encountered.

Water Power Development

During the past summer investigations were carried out in the Yellowknife district with a view to supplementing existing hydro-electric power facilities, and also to provide power for mining areas north and east of Yellowknife. One power site in the Snare River area, north of Yellowknife, is being investigated by consulting engineers for Frobisher Exploration Company on behalf of Giant Yellowknife Gold Mines Ltd. The scheme involves a diverson from Snare River through a chain of lakes connecting with Slemon Lake, which has the same elevation as Great Slave Lake and development of 25,000 horse power is expected.

Investigations commenced in 1944 on Lockhart River in the vicinity of Artillery Lake were continued in 1945 by the Calgary Power Company. Lockhart River offers the greatest source of power for the Yellowknife area but the transmission distance involved—some 200 miles—precludes any small development. A study of the flow of the Snare, Lockhart, and other rivers of the region was instituted during the summer of 1945 by engineers of the Dominion Water and Power Bureau. Continuation of this study will provide the records necessary to determine with assurance the amounts of power that may be capable of economic development.

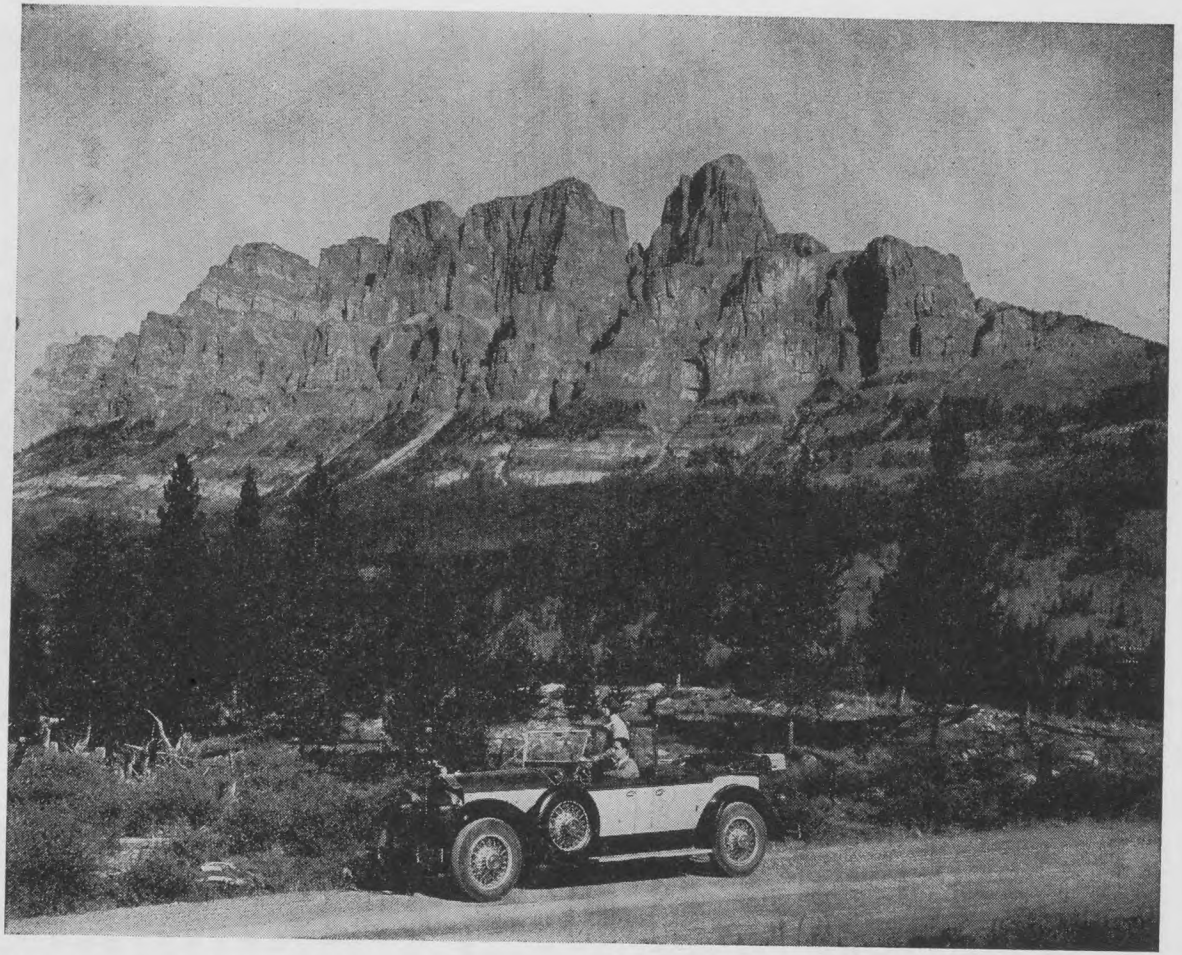
Townsite Development

The increased mining activity and influx of population at Yellowknife has necessitated more space for the construction of commercial and residential buildings, and to meet the demand the survey of an addition to the townsite was completed early in 1945. A number of lots have been disposed of and buildings are now in the course of erection. Scarcity of building materials has delayed construction of some projected buildings but this should be partially remedied in 1946. Among the buildings planned is a modern two-storey hotel, a new Government administration building, a liquor dispensary, and staff accommodation quarters. Numerous new business enterprises have been established in the settlement, and inquiries received by the Northwest Territories Administration at Ottawa indicate a further influx of both population and capital in 1946.

MOUNT EISENHOWER

Mountain of memory,
Mountain of hope,
Mountain of goodwill,
Ever pointing its head
Towards the sun.

Alberta can be pround to
act as its guardian.



Named in honor of the leader of the European victorious Allied Command in the past war, General Dwight D. Eisenhower, it stands forever as a monument to the strength and will to win of the Victorious Armies under his superb leadership.

Petroleum Production

Production of crude petroleum in the Northwest Territories showed a sharp decline following suspension of activities associated with the Canol Project. On March 8, 1945, the United States Government ordered its agent, Imperial Oil Ltd., to discontinue all drilling and production on Canol account. The pumping of crude oil through the Canol pipeline from Norman Wells to Whitehorse, Y. T., and operation of the refinery at Whitehorse, Y. T., were discontinued about April 1, 1945. The Canol Project agreement was officially terminated on May 3, 1945. Explorative drilling was continued in 1945 by Norman Exploration, a subsidiary of Imperial Oil.

A considerable quantity of crude petroleum and refined products in storage at Norman Wells, the property of the United States Government, was still on hand when the Canol Project ended. These refined products and crude stock were turned back to Imperial Oil Ltd. and consequently there was no necessity to operate the Norman Wells refinery until the late summer of 1945. The production of crude oil was limited also to a quantity sufficient to supply gas for the domestic requirements of the Norman Wells camp.

A total of 63 wells was drilled in the vicinity of Norman Wells under the Canol Project. Of these 60 were commercial producers. These wells were in addition to four pre-Canol wells developed by Imperial Oil prior to 1942. In addition, four wildcat wells were drilled for the Canol Project some distance from the proved field in an attempt to discover new pools, but were abandoned as dry holes.

Total oil production for the period in which the Canol Project operated—May, 1942 to March 8, 1945—was 1,858,447 barrels. Prior to 1942 a total of 118,895 barrels had been produced. Production for the period March 9, 1945 to October 31, 1945 was 60,626 barrels. The latest estimate of the recoverable reserve of the Norman oilfield, made in 1945, is 36,250,000 barrels.

Geological and Other Surveys

During the summer of 1945 a broad program of geological and other surveys was undertaken by various Dominion Government departments. Geological examinations were carried on in the Echo Bay portion of the Great Bear Lake area, and in the Hottah Lake region south of Great Bear Lake, with particular attention to the rarer minerals including pitchblende.

Geological mapping was continued in the vicinity of Ross Lake in the Yellowknife district and topographical work, involving the establishment of control in the active portion of the Yellowknife River area to provide base maps on a scale of one mile to the inch, was commenced.

A survey of the fisheries of Great Slave and Great Bear Lakes was continued by the Department of Fisheries, and agricultural surveys and experiments were continued in the Mackenzie District by officers of the Department of Agriculture.

A forest protection service for Mackenzie District has been organized by the Northwest Territories Administration, and although shortages of building and other materials have handicapped development, nevertheless considerable progress has been made.

The creditable production of gold, silver, petroleum, and radium and uranium concentrates in the Mackenzie District during the past decade, the number of proved discoveries awaiting development, and promising disclosures of the rarer metals, all point to an important future for this comparatively new mining field.

With adequate supplies of petroleum assured, and additional development of water power under consideration, satisfactory power resources are in sight.

An early return of normal labour conditions which will permit reopening of several producing gold mines is anticipated, and with further improvement in facilities for transportation and a steady flow of equipment and supplies expected, the postwar expansion of the mining industry in the Northwest Territories seems assured.

The Bear River Road

The planning of the portage road on the Bear River to circumvent the St. Charles Rapids is a real illustration of the necessity for local administration of the North West Territories by men familiar with the country. In this case an expenditure of some $250,000 has already been made with the prospects that it will cost some $400,000 before the road can be used.

The road is designed to avoid using the Bear River as much as possible on the way from Fort Franklin at the eastern end of Great Bear Lake to Norman for the transport of radium ores and supplies from and to the Radium Mines situated at the eastern end of the lake.

From Fort Franklin there is an old Indian trail used for years by the Indians to cross over from Great Bear Lake to the Mackenzie River, thus avoiding the difficult Bear River entirely. The distance is only around 30 miles across and connects with the Mackenzie River at Old Fort Norman which is 35 miles up stream from the present townsite at Canol.

It is stated that the grades on this route are easy—they naturally would be if Indians use the route for no Indian will drive dogs uphill if he can avoid it. Had this route been selected it could have been put into shape for a third of the above cost and would, in addition have eliminated the use of the Bear River with shallow draft boats entirely and in addition saved mileage.

Whoever was responsible for the routing of this portage road cannot have been familiar with the country and it seems a terrible waste of funds which could have been used to better advantage in the North.

Chamber of Commerce and Northern Transportation

Recommendations for the improvement of northern transportation havebeen made by the Edmonton Chamber of Commerce to the Dominion Government. These recommendations include the lowering of air rates to the North, and also lower water rates once transportation conditions are improved. No recommendations, however are made as regards the present rail rates from Edmonton to Waterways, Alberta, the head of water navigation, which all doing business in the North recognize as being one of the main features in the high cost of northern transportation.

In this connection it might be pointed out that the Waterways Branch of the Northern Alberta Railways is still treated as a line under construction although it is completed as far as Waterways, with the charter calling for its completion to McMurray, three miles from Waterways. It therefore does not come under the regulations set down by the Railway Commission, with the result that rates are not in line with similar mileage elsewhere on the prairies although it is part and parcel of the prairie rail system.

It is unfortunate that this phase of transportation cost was omitted from the Chamber of Commerce brief. Dredges and other aids to navigation are recommended, also stipulations as to the regular delivery of freight to Waterways prior to dead lines set by the water transportation companies. Dock facilities at Hay River and Yellowknife are also recommended on an improved scale and also that all traffic over the Grimshaw-Great Slave Lake highway be regulated by the traffic board to guarantee delivery, rates and responsibility.

Huge Additions To Northern Fleets for 1946

Hugh additions are being made to the fleets of both the Hudson's Bay Company Mackenzie River transport and the Northern Transportation Co., the Government owned transportation system to cope with the expected heavy river traffic of 1946. These additions are designed to remedy the state of affairs as existed in 1945, although in the case of the Hudson's Bay Company's fleet, it was possible to deliver all freight contracted for on time to the various river points during the 1945 season.

These additions show the confidence and good faith of the river transportation companies in their efforts to provide more service and in as much as such additions can only be 50 per cent efficient unless navigation aids are provided by the Dominion Government it is surely not too much to expect that the Government will make an early and determined effort to provide badly needed navigation aids and dredging in the north, particularly at the bottlenecks of the Athabasca and Slave River deltas.

He: "Have breakfast with me?"

She: "All right, I will."

He: "Fine. Shall I ring you or nudge you?"

NORTHERN RAILWAY ACTION

H. G. Archibald, M.P., for the Skeena River District in the House of Commons stated recently that private members from Northern British Columbia and from the three prairie provinces plan a bill calling for a new rail line across Western Canada between Winnipeg and the Peace River District. The line would link up with the Prince Rupert-Jasper line of the Canadian National Railways and have an outlet at Prince Rupert. The building of such a line only calls for the provision of some 525 miles of new line as the rest is already built and in running order.

Arctic Weather Posts

The United States Senate are seriously considering ways and means for the establishment of Arctic weather posts and a bill to establish the same is under consideration. In discussing the same it is pointed out that "Regardless of the claims of other countries to the land masses of the Arctic, it is clear that the greater part of the benefit from the Arctic Scientific research program will accrue to the United States because of our predominant position in this hemisphere. It is therefore considered proper for the United States to take the iniative toward the development of an Arctic meteorlogical network."

"Bless my wool," said the ram as he plunged over the cliff. "I did not see that ewe turn."

STRIKES AND CONSUMERS

Strikes are very fashionable these days. Labor seems determined to get things while the getting is good. Employers seem determined to revert back to the old methods of production and in the meantime the general run of consumers who perhaps compose some 80 or 90 per cent of the population are asked to stand on the sidelines and be dictated to as to what goods shall be produced and what quantities shall be available.

The difficulty was solved recently in one instance in Mexico recently. Labor struck and there was no power available. Consumers who were interested took the bull by the horns. They contacted labor leaders, Led them to the power house and said, "Get busy or else.' Labor got busy. That strike was ended.

A little kissing on moonlight rides
Is why we have the blushing brides,
A little petting now and then
Is why we have the married men.

"What's the difference between a co-ed and a working girl?"

"Well, what a co-ed learns from biology books a working girl has to learn from experience."

Have We Got Inflation?

Dr. Coue was right when he said that "what you think is right—must be right." Today everyone says, "We have no inflation." The governments spend millions of dollars in publicity to try and tell the public, "There is no inflation." Yet a dollar today will purchase exactly 40 cents' worth of goods.

Take the housing situation. Houses which rented for $20 a month now cost $40. Apartments that cost $40 to $60 a month now cost almost double. Chicken houses, shacks and hovels where water has to be packed in and sanitary conveniences are absent rent for anything from $20 up—mostly up. Single rooms with a hot plate or a stove and a few dishes become overnight apartments de luxe and cost as much as the traffic will bear.

People looking for living space almost have to produce birth certificates, character records and take solemn affidavits that they have no children before these inflationary property owners will let them have the privilege of using the space at arbitrary rentals.

Rules as to how much water can be used for a bath; how much light can be burnt; how much noise can be made and the curfew hour when all good people must be in bed are made and "We have no inflation." People must have places to sleep; must have clothes to wear; must have food to eat, yet Ottawa and its statistical department still insists: "There is no inflation." Oh, yes . . .

Fox Bites Man

When a dog bites a fox it is taken that he is a good foxhound, but when a fox chases a dog into a shack and under the bunk and when the owner of the dog seeks to evacuate both the dog and the fox from the cabin the fox bites the man—that makes news. That is what occurred recently in Alaska, a fox chased a dog into a cabin and when the owner endeavored to put him out, bit the man severely.

His name was Jack McCloy, a miner of Central district, Alaska, who has since been taken to the Fairbanks Medical and Surgical Clinic for Pasteur treatment, as it is believed the fox was suffering from rabies. It is also stated that wolves are also believed to have rabies, in some parts of Alaska. If this is the case it is just as well for Northerners to take a little care when patting Mr. Wolf on the head with an axe.

THE EXPLOSION OF THE ATOM BOMB

The most authentic and first-hand account of how the atom bomb was developed —experimented with and finally did its work in bringing Japan to its knees has been told by William L. Lawrence, science editor of the New York Times, who was one of the few onlookers who has seen most of the secrets of atom bomb manufacture and use.

Commenting upon the early history of its development, he stated that the opening of the race between Germany and the Allies as to who should be the first to develop the bomb commenced in 1939 with Germany well ahead.

The energy released from one pound of U-235 was found to be equal to that released from 15,000 tons of T.N.T.. The heat from one pound was equal to 25,000,000 tons of coal, and it meant victory to the first nation which could adapt it for use in war. It was in 1941 that the Allies commenced the race with the devil—Germany having a two year head start. Allied scientists hoped and prayed they would be unsuccessful in the effort on the ground that if they failed, Germany would also fail

It proved otherwise and for three years the whole destiny of the world hung in the balance It was not until five weeks before V-Day that the Allies found they had the key and that the Germans were beaten to it. Within months plants were available to make relatively enormous quantities of U-235. Huge factories were thrown up without pilot plants and without tests right from the drafting boards and the minds of scientists.

Not one plant failed. He tells about the first experiment in the desert of New Mexico on July 13th, 1945. About the hours of tension, of delicate adjustments and about the providential guidance which saved hundreds of the lives of the world's greatest scientists when lightning set off a dummy bomb previous to the test. If the real bomb had gone off at that time the work would have been wrecked.

In the millioneth of a second, at 5:30 a.m. in the chill of a desert dawn the first atomic explosion, man-made, took place. It was like a giant sun, 10 times as big as the sun, rising out of the bowels of the earth to a height of 40,000 feet within a few seconds. A terriffc light that made the earth look as bright as day from a distance of 20 miles away; a blast that took 100 seconds to reach us and which shook us like a huge earthquake.

He tells of the tension on August 5th at a tiny island in the Pacific when he watched the first B-29 take off for Hiroshima with the first atomic bomb aboard. "At 10:00 a.m. we got a two word message, "Mission successful," that was all.

He then tells of his own trip, the only layman to see atomic bombing from the air on August 9th at Nagasaki. He says: "We took off for Japan with several alternate targets. We were to make a visual bombing, without radar, in order to see the effect of the burst. Three weather planes were ahead of us.

Here was destiny or Providence at work again. A puff of wind that might clear a hole in the cloud layer over Japan would spell the doom of that city. Just as our gasolene was getting dangerously low, as we cruised over Nagasaki looking for a hole in the clouds, there came a puff of wind. There lay the city, miles below us. A tiny black object fell away from the plane, and we turned away from the target as fast as we could.

Suddenly there was a terrific unearthly flash of light. A tremendous pillar of fire, all colors imaginable, a vast mushroom of creamy white smoke, boiling and sizzling in the sky, shot through the clouds far above us—60,000 feet in the air. The big plane shook in the blast as if it would fall in pieces. That was the explosion that finished the war. One of three explosions which changed the face of the earth. . . . "

MORE RADIUM FINDS

It is stated that prospecting parties sent out in 1945 by the Dominion Government have resulted in the discovery of more radioactive ore finds in the N.W.T. The area prospected was around the Great Bear Lake present radium deposits and also on Lake Athabasca and Hottah Lake. It is stated that the results are very satisfactory and will more than repay expenditures.

Only three kinds of brassieres are to be made it is said. The Russian type; the Salvation Army type and the American type. The function of the Russian type is to uplift the masses. That of the Salvation Army type to raise the fallen and the function of the American type is "To make mountains out of molehills."

More Equipment For Tantalum Beryllium Mines

De Staffany Tantalum Beryllium Mines Limited operating on Great Slave Lake, where a pilot mill and other machinery are already in place, announce that more vital equipment necessary for ore production is now on the way to Grimshaw, Alberta, where it will be freighted over the Grimshaw Great Slave Lake winter road to the company's property. It is being trucked across the lake on the ice by the company's own tractor.

This equipment says Mr. De Staffany, president of the company, has been hard to get due to scarcity but the company has now succeeded and proposes to have it on the property so that an early start can be made this spring. It is intended he adds to sink a shaft to 100 feet, but most of the operations this year will be conducting new tests for the commercial production of tantalum, beryllium and columbium concentrates from the company's property. He also states that a considerable quantity of tantalite concentrates should be available for shipment by the beginning of July.

Considerable interest, according to Arthur Turner of London, England and others has been evinced in scientific circles thanks to the war, in these new metals which Mr. Turner characterizes as "miracle metals."

In his comments he states that the uses to which beryllium can be put are many and varied. Due to wartime necessities scientists succeeded in solving many of the mysteries connected with beryllium. In order to overcome the extreme brittleness of the metal it has been found that combined with a very small amount of copper it produces an alloy so strong that a half inch thick rod of the alloy will support a weight of 20 tons.

It was found invaluable during the war and its post war industrial possibilities are enormous, it being of value in many lines of peace time production. One peculiarity of the metal which remains to be explained is the fact that kilns lined with bricks containing beryllium give greater strength to porcelain articles baked therein.

Commenting on tantalum, he reiterates the known possibilities of use for this metal, especially as to its hardness and capacity of being drawn into almost invisible wire for surgical and other use. It figures in the production of synthetic rubber and has a potential value for use in electronics.

Pilot Mill on De Staffany Tantalum Beryllium Mines Limited Property at Great Slave Lake where beryllium, tantalum and columbium ores are treated

De Staffany Tantalum Berryllium Mines Limited, says Mr. De Staffany has exceptional deposits of these ores on its property which is adjacent to deep water on Great Slave Lake and capable of economical development and to date the company has been able to successfully finance preliminary development to the extent of shipping some ore concentrates and the erection of a pilot mill on the property.

He adds that further information as to the activities contemplated by the Company can be obtained by addressing either C. L. Jackson and Co., 210 Empire Buldg., Edmonton, or direct from Company's business offices at 914 McLeod Bldg., Edmonton.

INDUSTRIAL AND SCIENTIFIC RESEARCH

Address delivered at Canadian Manufacturers' Association Annual Meeting, Edmonton, by Hon. N. E. Tanner, Alberta Minister of Lands and Mines and Chairman of the Research Council of Alberta.

Everywhere today we see and realize the importance and effect of scientific research in the progress of humanity. As a result of our experience in World War 1, in which the Allied nations realized as never before the advantage enjoyed by the enemy nations through advanced research, much more active interest has been taken in research in this country, and, in fact, it is as a result of the combined efforts of the Allied countries in their research work that we were able to utilize radar and the atomic power to help bring to a successful conclusion the world conflict which we have just experienced.

Now that the war is over it is important that Canada, as well as all other countries, recognize the importance of scientific research in the post-war period. It is becoming very evident that we face many difficulties and dangers, as well as great opportunities, which are a challenge to all Canadians, and especially to those who are in Governments and in industry.

It is not my intention to go out of my field to try to deal with the subject of research from a technical or scientific standpoint, but rather first to report briefly on work being done by the Research Council of Alberta, and the great value that some of the research now being carried on here and elsewhere can mean to the development of certain of our natural resources and the industrialization of Alberta Second, the importance of research work in the development of any country and the part which industy has to play in the field of scientific research.

THREE GREAT NATURAL RESOURCES

Here in the Province of Alberta we have certain natural resources, the successful development of which depends to a very great extent on the scientific research now being carried on and which must be carried on in an endeavor to get the greatest return from their development. The three with which I would like to deal in particular are: natural gas, coal and bituminous sands.

According to reports put out by our Post-war Reconstruction Committee, our Petroleum and Natural Gas Conservation Board, and other authorities, the existence of large reserves of natural gas have been proven. The Viking field, which has been supplying Edmonton for the past 20 years, judged on the basis of reduced pressure, has yielded probably not more than 50 per cent of its capacity.

In the Kinsella field, which is adjoining, and other areas nearby which are being proven up at the present time, we have enormous reserves extending over an estimated 400 square miles. Besides this we have the Medicine Hat-Radcliffe gas field, rating as one of the biggest of Alberta's proven gas reserves.

Exploratory drilling throughout the province has proven Alberta to be one of the greatest gas reservoirs on the continent. Quoting from the Post-war Reconstruction Report:

"The greater part of this gas is high methane or dry variety, for which numerous uses other than fuel have been or are being developed economically. Allied War Supplies, Limited, are using large quantities of natural gas in the manufacture of ammonia in Calgary. Natural gas may prove to be one of the largest supplies of pure hydrocarbons on the continent and it can be used in many known processes for the manufacture of acetylene, ammonia, alcohols, liquid fuels and other similar chemicals.

"Until quite recently very little action was taken to preserve the natural gas that was discovered in the search for oil. Research has shown that aside from the use of gas as a fuel it can be used economically and feasibly in the production of synthetic rubber and plastics and that by the Fischer-Tropsch process liquid fuels are obtainable."

CONSERVATION OF NATURAL GAS

During the past 20 years this natural gas was considered to be of very little value other than for fuel or heating purposes, and was allowed to be burned as a waste product; however during the last few years it has been conserved under the administration of the Petroleum and Natural Gas Conservation Board and the Natural Gas Utility Board.

Experiments have been carried on by the two German scients—Fischer and Tropsch

—as well as scientists in America and elsewhere in an endeavor to produce synthetic gasoline from coal and natural gas. This process is based on the production of carbon monoxide and hydrogen from coal or natural gas followed by the synthesis of hydrocarbons from these two raw materials under heat and pressure in the presence of a catalyst.

This process was used successfully but not economically on coal in Germany. In the belief that natural gas was a cheaper source, a pilot plant system has been built in the Bureau of Mines laboratory in Pittsburgh, Pennsylvania, and also one at Olean, N.Y., where cost figures have been supplied showing synthetic gasoline can be produced from natural gas cheaply enough to compete with gasoline produced from crude oil. Plans are now completed for the erection of a commercial plant in Louisiana which, if successful, will turn out 5,000 barrels of high octane gasoline and 10,000 barrels of Diesel oil per day. As a by-product large quantities of crude alcohols will be produced which can be used as paint and lacquer solvents, in the manufacture of photo film and in many other manufacturing processes.

The Research Council of Alberta, through the late Dr. Boomer, has been in close touch with these experiments at all times and also has a pilot plant assembly similar to that used at the Bureau of Mines Laboratory, Pittsburgh, Pa., but modified to allow for almost complete automatic operation, and already preliminary tests have been run on catalysts in an endeavor to find the one which gives the greatest yield economically. Further tests are being outlined to find more efficient catalysts than are now being used in this process.

It is not at all unlikely that a commercial plant or plants besides the ammonia plant at Calgary might be built in the Province of Alberta for the purpose of utilizing our reserves of natural gas in the production of gasoline and the manufacturing of innumerable chemicals; in fact, some seem to be of the opinion that natural gas might well prove to be of even greater value than the crude oil of which it used to be considered a by-product.

However, this does not in any way lessen the value of crude oil, and I am happy to say that though the production of crude oil in Alberta has shown a sharp decline during the last two years, new areas are being tested at the present time and it is hoped that our oil reserves will be greatly enlarged.

Undoubtedly some will say that our supply of crude oil and natural gas is limited, but long before we reach this point we shall be turning to coal for gasoline and other products.

For many years Alberta has been considered as the coal province of Canada, and as containing some of the greatest coal deposits of the world; in fact, we think of our coal reserves as being practically unlimited; yes, even with greatly increased production it is estimated that our supply would last for hundreds of years.

In spite of our great reserves and ability to produce Alberta has been handicapped in her coal production by the fact that the large coal-consuming areas are at great distances, and with the high freight rates to these areas the market has been limited. As with most resources sold in their simplest or raw forms, only minimum prices are paid for the products, and consequently many of them cannot pay the freight. However, if these raw products are processed to increase their value, they will not only be able to pay the freight, but increase the market possibilities. For example, coal as coal commands only a limited market, but processed into gasoline, fertilizers and many other products which can be made from coal and which are much more valuable, the market possibilities are unlimited, regardless of present freight rates or distances.

I am happy to report that much good work along this line, as well as the making of briquettes, etc., is being carried on at the University of Alberta under the Research Council.

When one realizes that from natural gas and coal hundreds of by-products can be obtained in the form of gasolines, oils, varnishes, fertilizers, roofing and paving materials, dyes, sugars and various chemicals, it is evident that we in Canada should be bending every effort to see that more and more research work is made possible.

Another of Canada's natural resources which is found in abundance in Alberta is our bituminous sands. If you were to travel down the Athabasca River from McMurray you would see how the river has cut through the overburden into the bituminous beds. Exposures along the river and its tributaries reveal a minimum extent of 1,000 square miles. The total extent is probably many times greater than this figure. At the present the most significant area ex-

tends for 65 miles along the river, where the deposits are about 200 feet thick. Estimates of the Dominion Mines Branch and the U.S. Bureau of Mines run into billions of barrels of oil.

As the bituminous sands are a resource of the Province of Alberta, it has naturally sponsored studies of the sands over the years, through the agency of the Alberta Research Council. Experimental plants have been built and operated by Oil Sands Limited and by Abasand Oils Limited, but it was only recently that the Government of Alberta authorized the building of an experimental separation plant and necessary refinery at a site which it has taken over from the lease of Oil Sands Limited. This site is in the northern section of the bituminous sand area. The bituminous sands at this location contain a distinctly less viscuos oil than those at the Abasand Oil plant near McMurray.

Also, it is down the Athabasca River where large scale development must be, if and when it takes place. The experimental plant will make use of the practical experience of Oil Sands Limited and the research and experimental plant experience of the Research Council of Alberta.

Now that a satisfactory method of extracting the oil has been found and proven to be effective, the Government is primarily interested in establishing the unit cost of production. Methods must and will be found whereby this vast resource can be made commercially feasible. Whether or not the oil can be shipped as oil or broken down into by-products of great value depends on the amount of scientific research that goes into the project. What has and is being done with coal and natural gas can be done with our bituminous sands.

I have touched on only three of our well-known Canadian natural resources which are found in abundance throughout Alberta, and the utilization of which is the concern of the Research Council of Alberta. The Council, however, is interested in many other projects.

It is inevitable that with our potential natural resources of the West, and with a limited market for the raw material, we are now entering a phase of industrialization. As the fruits of industry are derived from research, I should like to bring you to the second part of this talk which I mentioned earlier, namely, the importance of research work in the development of any country in which industry has to play its part.

The war has demonstrated the importance of organized research on a high scientific plane. In the post-war years it will be necessary to continue research at an accelerated pace and to gear our scientific resources to meet the severe industrial competition that Alberta will face from other industrial regions in Canada and elsewhere.

Upon the quality, extent and co-ordination of our Canadian research work will depend the welfare (and the employment) of hundreds of thousands, or ultimately millions of Canadian workers. Scientific methods will have to be applied to lowering manufacturing costs and to devise new processes and new products. The expansion of trade and industry on which peacetime employment depend will, in large measure, be obtained by the application of scientific discoveries to solve the technical problems of the province's industries.

The alarming number of strikes occurring across the line in recent weeks makes us realize how much we depend on the United States for processed goods. We buy more processed goods from the United States than we are able to sell raw products. On the other hand we are only able to do this by the virtue of selling more raw material to Great Britain than we buy from her.

On this triangular basis we are affected by the ups and downs of other countries' business cycles, because our industry is confined to the simpler kinds of production. Industrial break-downs in other countries effect us adversely and we have leaned heavily on the other countries in the way of industrial research.

While our expenditures in the past on industrial research in Canada have been relatively small, we, as a country, have not, of course, been cut off from the benefits of research; one reason being that many of our industrial companies are either branch factories or have affiliations in the United States or the United Kingdom, from whom they have obtained their scientific and technical information. You must remember it was the importation of techniques and scientific inventions that gave Canada its industrial start and permitted her to play the part she has played in peace and war.

It took a world war in 1914-18 to make the Allies realize fully that Germany's great strength had been achieved by the integration of science and industry, in a way that this continent knew little about. One of the great initial weakneses of the Allies

in the last war lay in the fact that in many of the most essential fields of applied science, Germany's research had given her a monopoly that almost proved disastrous to her enemies.

Had the Allies not taken cognizance of the fact then, World War II might have had an entirely different ending. By 1930 the industrialists in America realized that the strength of an independent industrial country rests squarely on a scientific basis, and that there must be no neglect of research in any field of applied science if she is to remain in the front rank of industrial nations, and that is where we in Canada want to be. In order to do that, we must be willing to finance the necessary research and in the best interest of industrial development it is important that we do all possible to co-ordinate the research work of the University, Government, Research Council and of industry.

As stated previously, in Canada many of our industrial companies are branch factories of or affiliated with those in the United States or the United Kingdom, from whom they get most of their scientific and technical information. Such a programme has to the present time proved to be very beneficial in the development of industry in Canada, as well as it proved to be in the United States up until the last quarter of a century. However, since 1920 great progress has been made in our sister country to the south. Let me give you some comparative figures to show the progress made:

1920— 300 companies employed.... 9,300
1930—1,625 companies employed....34,200
1940—2,350 companies employed....70,000

In Canada, where we are much younger, and most of our companies are comparatively small, it is recommended that the different industries not only try to keep abreast with what others are doing, but rather that all possible be done by moderate sized industry and groups of small industries to have some trained person who can spend all his time on scientific work, and to act as an observer in the field of scientific research.

The overhead cost of establishing a laboratory and engaging staff would be prohibitive for a small- or medium-sized company, and for this reason many concerns are assigning their problems to an independent research laboratory adequately staffed with scientists in divers fields and where the specialized scientists have access to the latest information on technical development.

Recognizing the need for Canadian industry engaging in scientific research immediately, the Canadian Government in August, 1944, again followed the United States and Great Britain, by amending the Income War Tax Act to allow Canadian firms to make deductions for either capital or current expenditures incurred in scientific research This legislation is particularly opportune in that it will allow Canadian industry to mobilize its scientic resources in preparation for the keen industrial competition of the post-war world

The all-wise Creator has given us our natural resources in their natural state and anyone can produce these and dispose of them as primary products, but as long as we continue to do this we must remain as a nation of hewers of wood and drawers of water. To make Canada a prosperous and progressive country industries must be established and scientific research must be carried on on a large scale. Only as this is done will we enjoy the growth, development and security which is possible.

There are some who state that because we are small we must depend on the originality of others; however, as Dr. Mackenzie, President of the National Research Council, has said: We have all seen what Canadian science has been able to do in war and are anxious that gains made during the war should not be lost in peace but should be extended.

Our army was numerically small as compared with our Allies, but its units served in the front lines, so our scientific sons can compete on the same equal basis of quality as did our fighting men in battle. Once we accept the proper philosophy, the first important step will have been taken. There undoubtedly will be many struggles, discouragements and even temporary setbacks, but final triumph will be ours.

New Docks At Yellowknife

$7,000 is to be expended at Yellowknife by the Dominion Government in deepening the Narrows Channel between Latham island and the mainland to make this water route available for the passage of heavily loaded freight barges. A new dock with a total working frontage of 225 feet with power crane for the handling of freight is also to be built. In addition the matter of a bridge across the Latham narrows is also under consideration.

Hospital For Yellowknife

A hospital for Yellowknife at a cost of some $200,000 is to be built as soon as possible. It is being financed by the North West Territories Council contributing some $66,500, and the Canadian Red Cross Society it is understood will contribute the balance after the people of Yellowknife have made up a contribution of some $75,-000. Of the latter amount a donation has already been made by the Hudson's Bay Company, pioneers of the North, of some $5,000 and it is anticipated that mining companies and others will contribute the amount necessary to make up Yellowknife's share of the cost.

Conditions of the Government contribution is that the hospital shall be free of debt, with rates based on cost of operation. That its services shall be available for the hospitalization of Indian patients in a separate section and that there shall be no discrimination either on grounds of race or faith. Also employees of the various departments of the Government to receive the same rates as other patients.

The Alaska Highway

Here is a description of a bus ride over the Alaska Highway from Whitehorse to Dawson Creek which ought to do much to dispel the idea that the Alaska Highway runs through a wilderness of muskeg and swamp. On this particular ride most of the passengers were Yukoners bound for winter quarters in Vancouver, Frisco and Seattle. Says the story:

"Passengers were impressed with majestic scenery from Whitehorse to Fort Nelson. Knockers of the route have given interviews saying that it traversed a wilderness of jackpine. Along the Lewes River, headwater of the mighty Yukon, the scenery is enthralling. Hour upon hour the buses speeded along the short of beautiful Teslin Lake. The evening scene here, with the sun setting behind the far-away hills, meant a riot of color such as could be found nowhere else.

"Historic Lake Kluane provides 90 miles of lake shore drive as smooth as the Lake Shore Drive at Chicago, one traveller said. At Burwash Landing, famous in early Yukon history, is a good stopping place, laid out by the U.S.E.D., and there bunkhouses and cookhouses have all the modern fixtures.

"In the Muncho Lake region the mountains are different from those at Banff on the C.P.R. or at Mount Robson on the C.N.R., but no scenic spot in America surpasses them. Like pyramids, the great granite mountains stand at one spot. At another, at this end of Muncho, sits a mighty Buddha, cross-legged, six miles wide at the base.

"At Liard River the Hot Springs, amidst low, rounded green mountains, form the great attraction. The springs are a short distance from the highway. Steam arises in billows from them, as it does from a multitude of other springs farther back in the hills.

WAR IS OVER

Much to the joy of those who have suffered during the war years—the war is over. Do not forget all those who suffered did not occupy frontal positions on the battlefield. They were in many cases that silent part of the population called consumers. Much to the disgust of others, who enjoyed lots of profits, lots of work at lots of wages, the war is over.

Also much to the disgust of those who preyed upon the public need for housing the war is over. So the picture today is a sigh of relief on the part of those who suffered and who are now buoyed up with the idea that lower prices will mean more comfort and a note of exasperation from those who want things to remain on a wartime basis, irrespective of where it was leading the world as a whole.

A continuation of high prices means eventual ruin. The sooner everyone gets wise to that fact, the sooner the world will get back to normal. The war sprees are a thing of the past. No government, however willing, can continue to live either on borrowed money or borrowed time. Production at reasonable costs must be the reconstruction slogan.

Cost of living is only a matter of comparison. In the old days a dollar a day would buy as much, if not more, than five dollars today. Every increase in wages adds to overhead and every increase in overhead adds to prices charged. It is useless to expect that a manufacturer will continue to stay in business when he is told how much he can get for the article he manufactures and in addition is told how much he will pay his help. How long such help will work and how much it will produce. It can't be done. The sooner labor and governments realize that it cannot, the sooner everyone will have a job.

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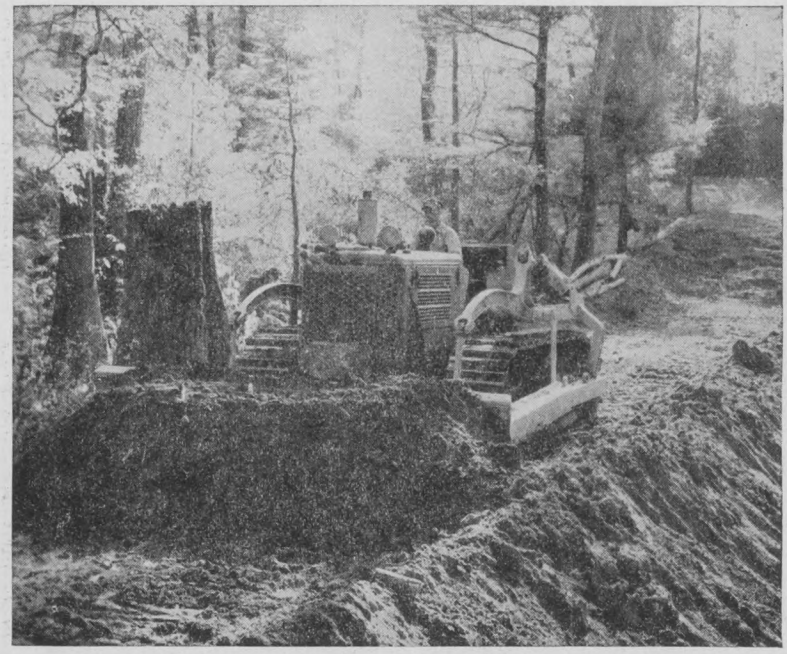

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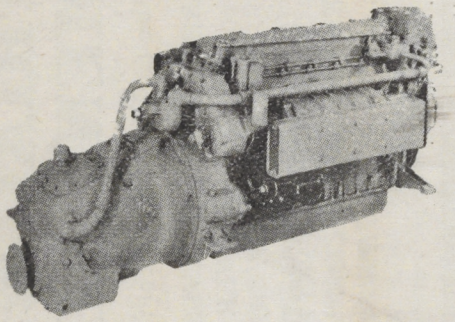

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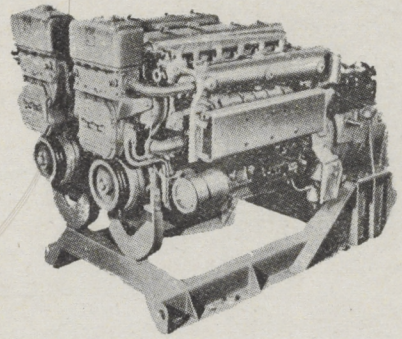

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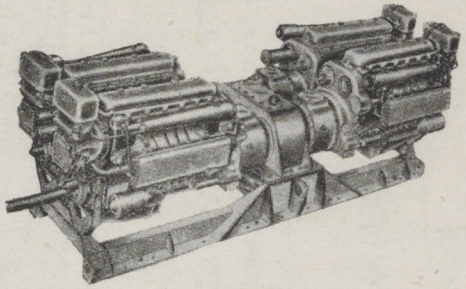

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